

Attorney Docket No.: US 010359

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**REMARKS****I. INTRODUCTION**

Claims 1, 9, 19-24, 26, 33 and 40 have been amended. Claims 4, 11, and 29 have been canceled. No new matter has been added. Thus, claims 1-3, 5-10, 12-40 remain pending in the present application. Applicant thanks the Examiner for allowing claims 4, 11, and 29 if written in independent form. In view of the above amendments and the following remarks, it is respectfully submitted that all of the presently pending claims are allowable.

**II. THE CLAIM OBJECTION SHOULD BE WITHDRAWN**

Claim 40 is objected to for a typographical error, which has now been removed as per the suggestion in the Office Action. (See 05/18/06 Office Action, p. 2, ¶ 2). Accordingly, Applicant respectfully submits that this objection should be withdrawn.

**III. THE 35 U.S.C. § 102(e) REJECTIONS SHOULD BE WITHDRAWN**

Claims 19, 20 and 25 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,477,143 to Ginossar ("Ginossar"). (See 05/18/06 Office Action, p. 2, ¶ 4).

Claim 19 recites, a "system for providing congestion control in a communications network by adjusting a sender rate between at least one sender node and destination node, comprising: a transmission module transmitting a plurality of data transmission from said source node to said destination node; a capacity module determining a bandwidth capacity of said network; a congestion module generating congestion feedback information based on the determined bandwidth capacity of said network to determine a congestion state; an adjustment

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module adjusting said sender rate at which said source node is currently transmitting the data based on said congestion feedback information, the adjusted rate being a function of said determined bandwidth capacity of said network, *wherein the function initially adjusts said sender rate non-linearly and then returns said sender rate to a linear rate when a predetermined percentage of said bandwidth is utilized within said network.*"

Ginossar generally relates to a method for congestion control and avoidance in computer networks. (See Ginossar, Abstract). Specifically, Ginossar describes a system in which a router of a network senses congestion and predict possible network congestion along a network pathway between multiple network nodes. (See Id., col. 11, lines 17-41). When network congestion is sensed or predicted, the system may limit or prevent the congestion through controlling the transmission rate of the network nodes. (See Id.). As admitted by the Examiner, Ginossar fails to teach or suggest the subject matter of allowable claims 4, 11, and 29 where the sender rate is increased non-linearly and then adjusted to a linear rate. However, Applicant respectfully submits that Ginossar neither teaches nor suggests any non-linear adjustment to the sender rate followed by an adjustment to a linear rate. Specifically, Ginossar fails to teach or suggest, "wherein the first function initially adjusts said sender rate non-linearly and then returns said sender rate to a linear rate when a predetermined percentage of said bandwidth is utilized within said network."

Thus, Applicant respectfully submits that for at least the reasons stated above, claim 19 of the present application is not anticipated by Ginossar, and requests that the rejection of this claim be withdrawn. As claims 20 and 25 depend from, and therefore include all the limitations of claim 19, it is hereby submitted that these claims are also allowable.

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**IV. THE 35 U.S.C. § 103(a) REJECTIONS SHOULD BE WITHDRAWN**

Claims 1-3, 5, 8-10, 14-16, 21-23, 26-28, 30, 33-34, 36-37, and 35 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ginossar in view of U.S. Patent No. 6,577,599 to Gupta ("Gupta"). (See 05/18/06 Office Action, p. 4, ¶ 6).

Claim 1 recites, a "method for providing congestion control in a communications network, the method comprising the steps of (a) transmitting a plurality of serial data transmission from a source node to a destination node; (b) determining whether a congestion occurs in said network; (c) determining a bandwidth capacity of said network; (d) adjusting a sender rate at which said source is currently transmitting the data according to a first function of the determined bandwidth capacity if no congestion occurs, *wherein the first function initially adjusts said sender rate non-linearly and then returns said sender rate to a linear rate when a predetermined percentage of said bandwidth is utilized within said network*; and, (e) adjusting said sender rate of said source node according to a second function if congestion occurs." (Emphasis added).

Gupta generally relates to a method and apparatus for multicasting in a network environment. (See Gupta, Abstract). Specifically, Gupta describes a system for monitoring and adjusting the data transmission rate and participant response rate so that the data is transmission rate is maximized and data loss rate is minimized. (See *Id.*, col. 6, lines 14-18). Similar to Ginossar, the Examiner has admitted that Gupta also fails to teach or suggest the subject matter of allowable claims 4, 11, and 29. Furthermore, similar to Ginossar, Applicant respectfully submits that Gupta neither teaches nor suggests any non-linear adjustment to the sender rate followed by an adjustment to a linear rate. Thus, it is respectfully submitted that neither Ginossar nor Gupta teach or suggest, "wherein the first function initially adjusts said sender rate

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non-linearly and then returns said sender rate to a linear rate when a predetermined percentage of said bandwidth is utilized within said network,” as recited in claim 1. Applicant respectfully submits that for at least the reasons stated above, claim 1 of the present application is allowable and requests that the rejection of this claim be withdrawn. As claims 2, 3, 5, and 8 depend from, and therefore include all the limitations of claim 1, it is hereby submitted that these claims are also allowable.

The Examiner rejected claim 26 using similar arguments to the rejection of claim 1 over Ginossar in view of Gupta. (See 05/18/06 Office Action, p. 4, ¶ 6). Claim 26 recites *“wherein the first function initially adjusts said sender rate non-linearly and then returns said sender rate to a linear rate when a predetermined percentage of said bandwidth is utilized within said network.”* Therefore, Applicant respectfully submits that claim 26 is allowable for at least the reasons discussed above with regard to claim 1. As claims 27, 28, and 30 depend from, and therefore include all the limitations of claim 1, it is hereby submitted that these claims are also allowable.

The Examiner rejected claims 9 and 33 using similar arguments to the rejection of claims 1 and 26 over Ginossar in view of Gupta. (See 05/18/06 Office Action, p. 7, ¶ 6). Claim 9 recites, *“wherein the first function initially adjusts said sender rate non-linearly and then returns said sender rate to a linear rate when a predetermined percentage of said bandwidth is utilized within said network.”* Therefore, Applicant respectfully submits that claim 9 is allowable for at least the reasons discussed above with regard to claims 1 and 26. As claims 10 and 14-16 depend from, and therefore include all the limitations of claim 9, it is hereby submitted that these claims are also allowable.

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Claim 33 recites “*wherein the first function initially adjusts said sender rate non-linearly and then returns said sender rate to a linear rate when a predetermined percentage of said bandwidth is utilized within said network.*” Therefore, Applicant respectfully submits that claim 33 is allowable for at least the reasons discussed above with regard to claims 1 and 26. As claims 34, 36, and 37 depend from, and therefore include all the limitations of claim 33, it is hereby submitted that these claims are also allowable.

Claim 22 recites, “said adjusting means increase the number of packets transmitted by said source node *initially at a non-linear rate and then at a linear rate* if a predetermined range of the bandwidth capacity of said network is utilized.” Therefore, Applicant respectfully submits that claim 22 is allowable for at least the reasons discussed above with regard to claims 1 and 26.

Claim 40 recites “*wherein the first function initially adjusts said sender rate non-linearly and then returns said sender rate to a linear rate* when a predetermined percentage of said bandwidth is utilized within said network.” Therefore, Applicant respectfully submits that claim 40 is allowable for at least the reasons discussed above with regard to claims 1 and 26.

Claims 21 and 23 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ginossar in view of Gupta. (See 05/18/06 Office Action, pp. 13-14, ¶ 6). As discussed above, Ginossar does not teach or suggest all the limitations of amended independent claim 19. It is respectfully submitted that Gupta is insufficient to cure the above-stated deficiencies of Ginossar. Because claims 21 and 23 depend from, and, therefore include all the limitations of claim 19, it is respectfully submitted that claims 21 and 23 are allowable for the reasons stated above with reference to claim 19.

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Claims 6, 7, 12, 13, 17, 18, 24, 31, 32, 35, 38 and 39 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ginossar in view of Gupta, and in further view of the prior art of the Specification. (See 05/18/06 Office Action, p. 14, ¶ 7).

As discussed above, neither Ginossar nor Gupta, alone or in combination, teach or suggest all the limitations of amended independent claims 1, 9, 19, 26, or 33. It is respectfully submitted that the prior art of the Specification is insufficient to cure the above-stated deficiencies of Ginossar in view of Gupta. Because claims 6 and 7 depend from, and, therefore include all the limitations of claim 1, it is respectfully submitted that claims 6 and 7 are allowable for the reasons stated above with reference to claim 1. Because claims 12, 13, 17 and 18 depend from, and, therefore include all the limitations of claim 9, it is respectfully submitted that claims 12, 13, 17 and 18 are allowable for the reasons stated above with reference to claim 9. Because claim 24 depends from, and, therefore includes all the limitations of claim 19, it is respectfully submitted that claim 24 is allowable for the reasons stated above with reference to claim 19. Because claims 31 and 32 depend from, and, therefore include all the limitations of claim 26, it is respectfully submitted that claims 31 and 32 are allowable for the reasons stated above with reference to claim 26. Because claims 35, 38 and 39 depend from, and, therefore include all the limitations of claim 33, it is respectfully submitted that claims 35, 38 and 39 are allowable for the reasons stated above with reference to claim 33.

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**CONCLUSION**

In light of the foregoing, Applicant respectfully submits that all of the now pending claims are in condition for allowance. All issues raised by the Examiner having been addressed. An early and favorable action on the merits is earnestly solicited.

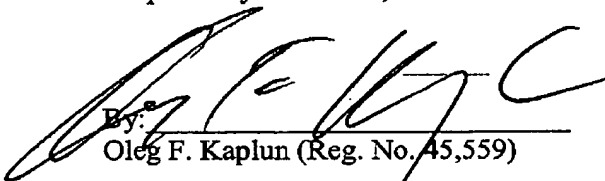
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Respectfully submitted,

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